

AF/2811

IR-1677 (2-1984)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

#24
6-21-03
Payton

In re Patent Application of:

Zhijun Qu et al.

Date: June 13, 2003

Serial No.: 09/329,156

Group Art Unit: 2811

Filed: June 9, 1999

Examiner: Shouxiang Hu

For: DUAL EPITAXIAL LAYER FOR HIGH VOLTAGE VERTICAL CONDUCTION
POWER MOSFET DEVICES

Mail Stop Reply Brief
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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REPLY TO EXAMINER'S ANSWER

Sir:

With some exceptions that are not relevant here, Rule 193 clearly states that an "Examiner must not include a new ground of rejection" in his/her Answer (Emphasis added). 37 C.F.R. 1.193(a)(2).

In the Answer, the Examiner has asserted that claims 1-4 and 9 are not patentable over Ishimura in view of Akiyama.

In the Final Rejection, this ground for rejection was not asserted. It is respectfully submitted, therefore, that the Answer includes a new ground for rejection.

Furthermore, the Answer states that it would have been obvious to one of ordinary skill "to incorporate the plurality of p-type shallow base diffusions of Ishimura, along with (or without) the breakdown-suppression feature, into the semiconductor device of Akiyama, so that a device with lowered on-resistance suitable for applications that require high breakdown voltage (or not-too-high breakdown voltage) would be obtained." (Answer, page 6, first full paragraph.)

In the Final Rejection, it was stated that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the semiconductor device of Akiyama

with the p-type diffusions being shallower than the second layer, so that a device with lowered on-resistance would be obtained, per the teachings of Yamamoto and/or Ishimura.” (Final Rejection at paragraph 3).

When the two positions are compared it becomes clear that in the Answer the Examiner has taken the position that one skilled in the art is directed by Ishimura to drop the breakdown suppression feature 11A to obtain a device with low on-resistance, but “not-too-high breakdown voltage”. In other words, the position taken in the Answer is that Ishimura teaches the modification of the device in Akiyama to include the body region within the high conductivity epitaxial layer, but to not include the breakdown suppression feature 11A to obtain a device with “not-to-high breakdown voltage.” This position was not taken in the Final Rejection and should be considered a new ground for rejection in that it raises new issues not previously raised during Ex parte prosecution. For example, it raises the following issues: (a) what the so called “not-too-high breakdown voltage” means, and (b) how a skilled person would be led by Ishimura’s teaching to drop the breakdown suppression feature 11A for making a device with “not-too-high breakdown voltage” when Ishimura specifically teaches the inclusion of the suppression feature 11A to overcome the problem of breakdown (i.e., when Ishimura teaches away from making a device without the breakdown suppression feature 11A).

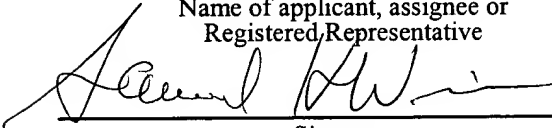
It is respectfully submitted that the new positions taken by the Examiner should be pursued in Ex parte proceedings, rather than raised during the Appellate proceedings. During Ex parte proceedings the applicant has the right to present arguments as well as amend claims in response to the Examiner’s positions. When new grounds for rejection are raised for the first time on appeal, the appellant is unfairly deprived of the opportunity to amend claims in response to the Examiner’s new positions. It is respectfully submitted that the proper course of action would have been to reopen prosecution in order to have the appellant consider the Examiner’s new positions, and if necessary amend the claims to address those positions. Such course of action is still possible as provided by Rule 193(b)(1) (the Examiner may enter the Reply Brief or reopen the prosecution.) However, should the Examiner insist on relying on the new grounds in the Answer, it is respectfully submitted that the Board should remand the application to the Examiner pursuant to M.P.E.P. §1211 with instructions to reopen the case for Ex parte prosecution so that the Examiner’s new positions may be addressed properly.

This Reply to Examiner's Answer is being submitted herewith in triplicate.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 13, 2003:

Samuel H. Weiner

Name of applicant, assignee or
Registered Representative



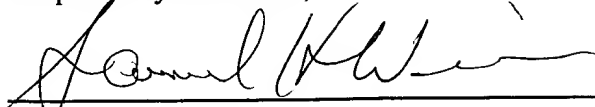
Signature

June 13, 2003

Date of Signature

SHW:KS:ck

Respectfully submitted,



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